## ABSTRACT

The present invention teaches a compact and highly integrated multiple-channel digital tuner and receiver architecture, suitable for widespread field deployment, wherein each receiver demodulator channel may be remotely, automatically, dynamically, and economically configured for a particular cable, carrier frequency, and signaling baud-rate, from an option universe that includes a plurality of input cables, a plurality of carrier frequencies, and a plurality of available baud-rates. A multiple coax input, multiple channel output, digital tuner is partitioned into a multiple coax input digitizer portion and a multiple channel output front-end portion. The digitizer portion consists of N digitizers and accepts input signals from N coax cables and digitizes them with respective A/D converters. The front-end portion consists of M front-ends and provides M channel outputs suitable for subsequent processing by M respective digital demodulators. In a first clock domain, a fixed predetermined A/D sampling rate is chosen to provide oversampling of the inputs by a common integer multiple of all the symbol rates of interest. A plurality other clock domains operate at selectable sub-multiples of the first domain as required to deliver a constant number of symbol samples at the output of each front-end. At the input to each of the M front-ends is a respective input selector coupled to each of the N streams of digitized input data followed by a digital signal scaler that dynamically scales the selected incoming stream of digitized input data as a function of the signal power of the channel's associated carrier.